

## THREE VICTORIAN SPECIES OF OPHICARDELUS (CLASS MOLLUSCA)

BY TOM IREDALE.\*

Twenty years ago Mr. J. H. Gatliff published in this journal a "Catalogue of Victorian Estuarine Univalve Mollusca" (Vol. XXII, pp. 13-16, 1905), and I cannot find that much has been added thereto since. Twelve species were listed, and under the genus name, *Ophicardelus*, one species, *O. australis*, Quoy and Gaimard, only appears. As localities at that time known—Bark Beach, Williamstown, Port Phillip, and Hastings, Western Port—only are cited, probably many others are now known.

At Lakes Entrance, Victoria, Roy Bell collected three clearly distinguishable species, and these were easily identified at the British Museum as *O. stutchburyi*, *O. quoyi* and *O. ornatus*. Hedley, in his Check List of New South Wales Marine Mollusca, included the Estuarine forms, and there two species were ranged under *Phytia ornata* and *sulcata*.

At Church Point, Broken Bay, New South Wales, I collected three species, determined as *ornata*, *sulcata* and *quoyi*. Comparison showed that the specimens referred to as *sulcata* agreed with those determined as *stutchburyi*, and consequently these names are synonymous. As the latter was described from Port Curtis, Queensland, it extends along the east coast from there to Lakes Entrance.

Hedley was of the opinion that *quoyi* had been erroneously recorded from Port Jackson, and that it occurred in New Zealand. While it is common here, the New Zealand shell varies, and has a name already, *castellaris*. Again Mörsson's two species, which Hedley suggested were synonymous with *ornatus*, I determine as *quoyi*.

In order to clarify this matter, I present figures of the three species, with their names and distribution:—

### OPHICARDELUS ORNATUS (Férussac). (Fig. 1.)

*Auricula ornata*, Férussac. Tabl. Syst. Anim. Moll., p. 103, 1821: Pl. (2)

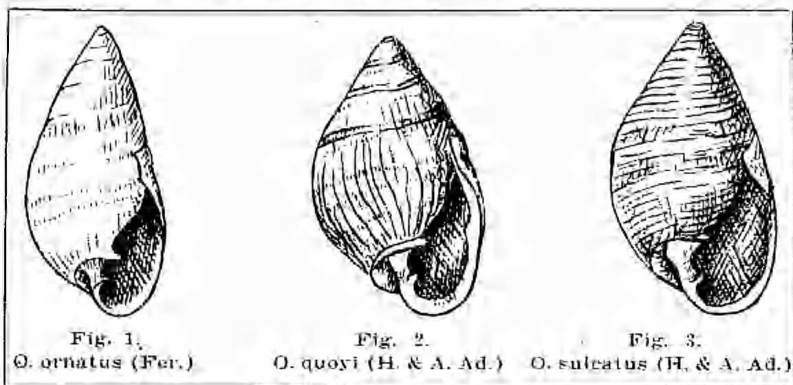
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*Auricula ovata*, Gray. Spicilegia Zoologica, pt. 1, p. 5, pl. 6, fig. 21, 1828; "South Sea Island, Stutchbury." Probably Sydney, N.S.W. (Not *A. ovata*, Lam., 1806.)

*Auricula australis*, Quoy and Gaimard. Voy. Astrol. Zool., Vol. 11, p. 169, pl. 13, figs. 34-38, 1832; "Western Port, Vic., and V.D.L."

*Auricula bidens*, Potiez et Michaud. Galerie Mollusques Douai, Vol. 1, p. 201, pl. xx, fig. 9-10, 1838; "Nouvelle Hollande."

*Cremnobates cornua*, Swainson. Papers Proc. Roy. Soc. V.D.L., Vol. III, pt. 1, p. 43, pl. vii, fig. 1, Jan., 1855; near Hobart Town, V.D.L.



*Ophicardelus australis*, Tate and May. Proc. Linn. Soc., N.S.W., 1901, p. 419; Tas.

*Ophicardelus australis*, Gatliff. Vic. Nat., Vol. XXII, p. 16, May 4, 1905; Vic.

*Ophicardelus ornatus*, Hedley. Proc. Linn. Soc., N.S.W., Vol. XXXVIII, p. 334, 1913.

*Phytia ornata*, Hedley. Check List Marine Fauna, N.S.W., Moll. M. 95, 1918; N.S.W. May, Check List Moll., Tasm., p. 88, 1921; Tasm. Illustr. Index Tasm. Shells, pl. 40, fig. 24, 1923; Tas.

Easily recognised by its shape and lack of sculpture; an incised line showing below the suture on the earlier whorls only; slight depression behind the inner lip; outer lip sharp, not thickened nor toothed.

Specimens examined from New South Wales, Victoria and Tasmania.

## OPHICARDELUS QUOYI, H. and A. Adams. (Fig. 2.)

*Ophicardelus quoyi*, H. and A. Adams. Proc. Zool. Soc. (Lond.), 1854, p. 34, Jan. 10, 1855; Moreton Bay, Queensland.

*Melampus tetricus*, Morelet. Journ. de Conch., Vol. XII, p. 290, July 1, 1864; "Nouvelle Galles de Sud."

*Ophicardelus irregularis*, Mousson, Journ. de Conch., Vol. XVII, p. 64, pl. v, fig. 2, Jan. 1, 1869; "lac Tom-Tom, près Wollongong."—Tom Thumb Lagoon, near Wollongong, New South Wales.

*Ophicardelus minor*, Mousson, Journ. de Conch., Vol. XVII, p. 65, pl. v, fig. 3; same locality.

*Ophicardelus quoyi*, Hedley, Proc. Linn. Soc., N.S.W., Vol. XXXVIII, p. 333, pl. xix, fig. 87, 1913; N.S.W.

A shorter, broader shell, showing irregular growth ridges on last whorl, an incised line below the suture present on all the whorls; no perforation, but a depression behind the reflected inner lip; the outer lip thickened, and with an indistinct tooth medially internally.

Specimens examined from New South Wales and Victoria.

## OPHICARDELUS SULCATUS, H. and A. Adams. (Fig. 3.)

*Ophicardelus (Laimodonta) sulcata*, H. and A. Adams. Proc. Zool. Soc. (Lond.), 1854, p. 34, Jan. 10, 1855. Hab.: (?) Probably Sydney, N.S.W.

*Melampus (Ophicardelus) stutchburyi*, Pfeiffer. Proc. Zool. Soc. (Lond.), 1856, p. 393, May 8, 1857; Port Curtis, Queensland.

*Ophicardelus sulcatus*, Hedley. Proc. Linn. Soc., N.S.W., Vol. XXXVIII, p. 333, pl. ix, fig. 86, 1913.

*Ophicardelus stutchburyi*, Hedley. Proc. Linn. Soc., N.S.W., Vol. XXXVIII, p. 334, pl. xix, fig. 88, 1913.

*Phytia sulcata*, Hedley. Check List Marine Fauna, N.S.W., Moll. M. 95, 1918; N.S.W.

Strongly sculptured with revolving liræ; less marked on the body whorl; a small perforation persistent behind the reflected inner lip.

Specimens examined from Queensland (Port Curtis), New South Wales and Victoria.